# Cleanline Serviceline & Ultraline



## **Chemistry and machine solutions**

## Contents

Cleanline P60 - P80	3
Cleanline P100 - P120	5
Cleanline T100 - T120	9
Cleanline 2 Trins U80 2B - U100 2B - U120 2B	13
Part Washing machines TL-700-900-1150	18
Part Washing machines FL-1100P-1350-1600	21



### Cleanline P60/80

Cleanline P60 and P80 is a system for automatic washing of mechanical parts.

The washing is carried out by the action of upper, lower and side jets.

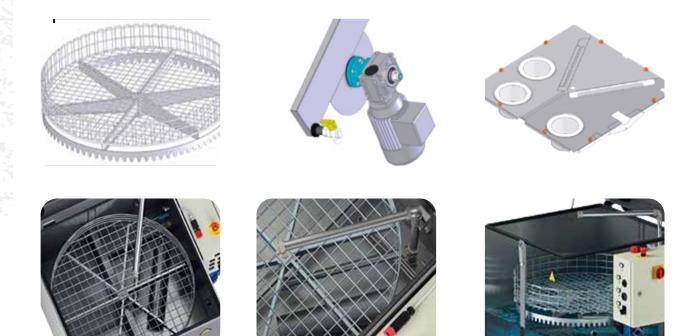
Basket rotates through a gear motor. The board is electromechanical.

Operators can set the tank liquid temperature as well as the length of the treament cycle





Technical Data	P 60	P 80
Basket capacity	100 kg	100 kg
Opened maschine dimensions (LxBxH)	92 x 86 x 153 cm	112 x 105 x 185 cm
Washing capacity (ØxH)	58 x 38 cm	78 x 43 cm
Tank capacity	60 L.	130 L.
Washing pump	0,55 kW 2,5 bar 120 l./min.	0,55 kW 2,5 bar 120 L./min.
Washing heating	4,0 kW	4,0 kW
Mechanical rotation	0,09 kW	0,09 kW
Oli skimmer	0,09 kW	0,09 kW
Weight	85 kg	96 kg.
Connections	3x380 V, 6 bar	3x380 V, 6 bar
Steam drain outlet	Ø 50 mm.	Ø 50 mm.



#### **Equipment** Included in all Cleanline P 60 og 80 machines

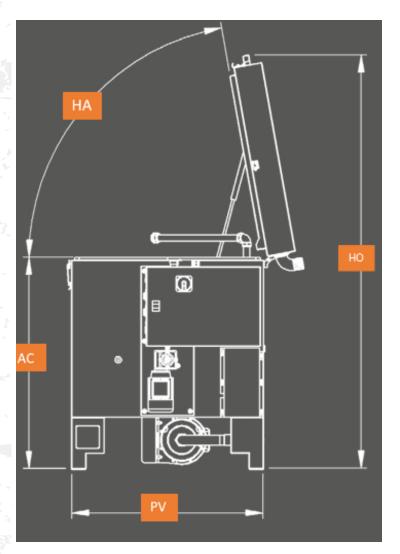
- Electromechanical control board
- Mechanical rotation of the basket by a gear motor
- Reinforced basket in electrowelded net with external edge of galvanized steel
- Tank minimum level control for the protection of pump and resistor
- Electric pump in stainless steel AISI 304 with special Gaskets
- Filter in stainless steel AISI 304 on the pump suction
- Tank edge Gasket
- Electrical box of painted metal
- Safety limit switch on the cover opening
- Structure and plates in stainless steel
- Liquid heating with electric resistor in stainless steel
- Laser-drilled washing pipes in stainless steel (more pressure, less maintenance)
- Flexible suction and pump delivery pipes (easy maintenance)

#### Additional accessories

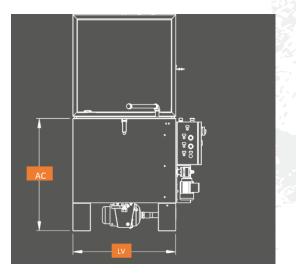
- Basket in stainless steel AISI 304 [1]
- Disc oil separator [2]
- Panels under the basket with grease collecting filters [3]
- Kit for use with abrasive contaminants
- Pipes with blade-nozzle in stainless steel

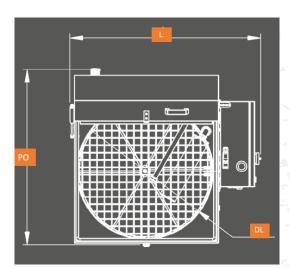


## Dimensions



		P 60	<b>P 80</b>
L	Width	92 cm	112 cm
PO	Depth	86 cm	105 cm
НО	Height	153 cm	185 cm
DL	Washing diameter	58 cm	78 cm
HL	Washing height	38 cm	43 cm
AC	Loading height	83 cm	92 cm
LV	Tank width	64 cm	84 cm
PV	Tank depht	64 cm	84 cm
HA	Opening angle	80 °	80 °
W	Weight	85 kg	96 kg
RU	dBa	75	75







5

## Cleanline P100/120

Cleanline P100 og P120 a system for automatic washing of mechanical parts.

The washing is carried out by the action of upper, lower and side jets.

The basket rotates through a gear motor. The board is electromechanical.

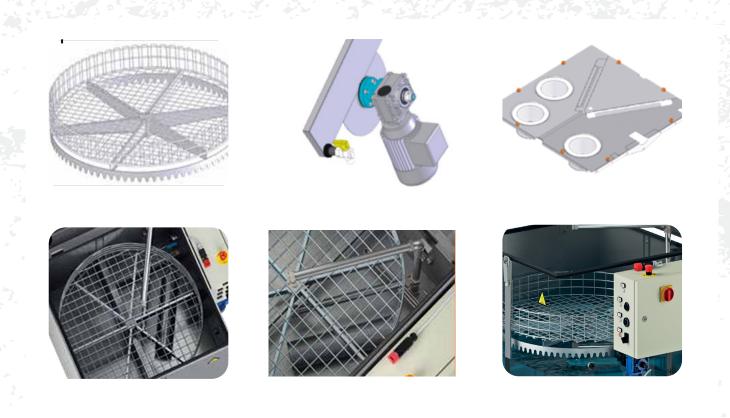
Operators can set the tank liquid temperature as well as the length of the treament cvcle.





Technical Data	P 100	P 120
Basket load capacity	200 kg	300 kg
Opened machine dimensions (LxBxH)	146 x 175 x 191 cm	166 x 206 x 211cm
Washing capacity (ØxH)	95 x 54 cm	117 x 70 cm
Tank capacity	210 L.	270 L.
Washing pump	1,5 kW 2,5 bar 200 l./min.	1,5 kW 2,5 bar 200 L./min.
Washing heating	6,0 kW	8,0 kW
Mechanical rotation	0,09 kW	0,09 kW
Oli skimmer	0,09 kW	0,09 kW
Weight	168 kg	202 kg.
Connections	3x380 V, 6 bar	3x380 V , 6 bar
Steam drain outlet	Ø 75 mm.	Ø 75 mm.





#### Equipment

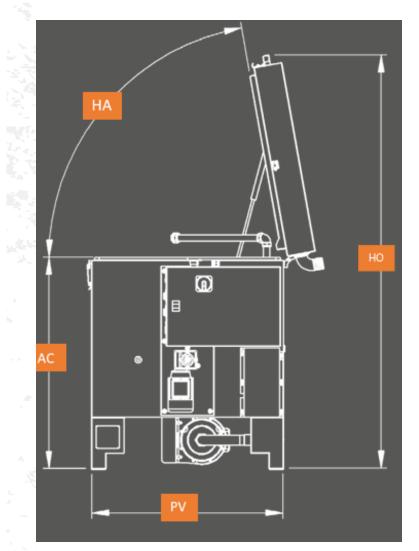
#### Included Cleanline P 100 and P120 machines

- Electromechanical control board
- Mechanical rotation of the basket by a gear motor
- Electric timed steam extraction
- Reinforced basket in electrowelded net with external edge of galvanized steel
- Tank minimum level control for the protection of pump and resistor
- Electric pump in stainless steel with special Gaskets
- Filter in stainless steel AISI 304 on the pump suction
- Tank edge Gasket
- Electrical box of painted metal
- Safety limit switch on the cover opening
- Structure and plates in stainless steel
- Liquid heating with electric resistor in stainless steel Incoloy
- Laser-drilled washing pipes in stainless steel (more pressure, less maintenance)
- Flexible suction and pump delivery pipes (easy maintenance)

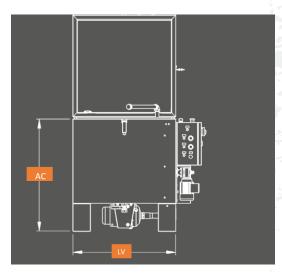
#### Additional accessories

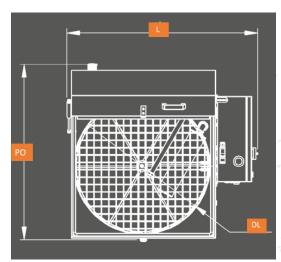
- Basket in stainless steel AISI 304 [1]
- Disc oil separator [ 2 ]
- Panels under the basket with grease collecting filters [3]
- Kit for use with abrasive contaminants
- Pipes with blade-nozzle in stainless steel

## Dimensions



		P 100	P 120
L	Width	146cm	166 cm
PO	Depth	175 cm	206 cm
НО	Height	191 cm	211 cm
DL	Washing diameter	97 cm	117 cm
HL	Washing height	54 cm	54 cm
AC	Loading height	67 cm	67 cm
LV	Tank width	110 cm	130 cm
PV	Tank depth	120cm	135 cm
HA	Opening angle	60 °	60 °
W	Weight	168 kg	202 kg
RU	dBa	75	75









#### Cleanline T100/120 Parts washers with rotary basket, PLC and touchscreen

Cleanline is a system ideal for the automatic washing of small and medium

size mechanical parts. The washing is carried out by the action of upper, lower and side jets. The slow rotation of the basket is ensured

by a gear motor.

A PLC and touchscreen display management enables numberless customisations thanks to a wide range of accessories.



Technical Data	T 100	T 120
Basket capacity	200 kg	300 kg
Opened machine dimensions (LxBxH)	146 x 175 x 191 cm	166 x 206 x 211cm
Washing capacity (ØxH)	95 x 54 cm	117 x 70 cm
Tank capacity	210 L.	270 L.
Washing pump	1,5 kW 2,5 bar 200 l./min.	1,5 kW 2,5 bar 200 L./min.
Washing heating	6,0 kW	8,0 kW
Mechanical rotation	0,09 kW	0,09 kW
Oli skimmer	0,09 kW	0,09 kW
Weight	168 kg	202 kg.
Connections	3x380 V, 6 bar	3x380 V , 6 bar
Steam drain outlet	Ø 75 mm.	Ø 75 mm.

g



#### Equipment

#### Included in Cleanline T 100 and 120

- Electric timed steam extraction
- Reinforced basket in electrowelded net with external edge of galvanized steel
- Electric pump in stainless steel AISI 304 with special Gaskets
- Filter in stainless steel AISI 304 on the pump suction
- Tank edge Gasket in EPDM
- Electrical resistor in stainless steel Incoloy
- Mechanical rotation of the basket by a gear motor
- IP 65 electric system with PLC (DGT V4)
- Structure and plates in stainless steel
- Flexible suction and pump delivery pipes
- Tank liquid minimum level control for the protection of pump and resistor
- Tank liquid maximum level control and solenoid valve for automatic water intake
- Safety limit switch on the cover opening
- Laser-drilled washing pipes in stainless steel (more pressure, less maintenance)
- Weekly programming for the activation of heating and oil separator (if installed)

#### **HT Version offers**

- Electric steam extraction
- Thermal insulation with panels in stainless steel AISI 430
- Safety limit switch with cover opening lock during the cycle
- Panels under the basket with trap filter for grease and chip collection



#### Additional accessories

- Pneumatic opening and closing of the cover with safety control
- Resistor and blower drying
- Steam extraction (patented system) [ C ]
- Additional external trolley for CES
- Basket in stainless steel AISI 304
- Centrifugal steam condenser with wheels
- External trolley in stainless steel AISI 304
- Additional basket for CES
- Thermal insulation of bag filter
- Automatic liquid detergent dispenser during washing
- Disc oil separator with gear motor
- External pneumatic oil separator
- Bag filter on the washing pump delivery pipe
- Teflon and Viton Gaskets
- Manual washing with pump external commands and rotation
- Kit for use with abrasive contaminants
- Kit for use with strongly caustic chemical products
- High pressure washing pump
- Panels under the basket with grease collecting filters
- Retention tank in stainless steel
- Compressed air blowing and independent pipes
- Internal welding bleaching
- Tank emptying pump

[A]

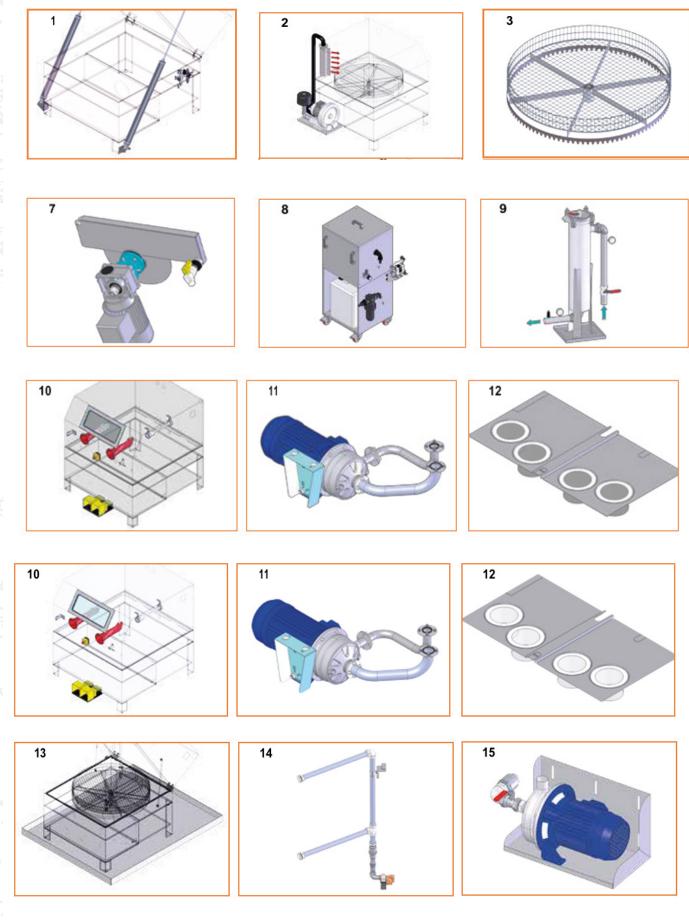
[B] [C]

[D]

- Pipes with blade-nozzle in stainless steel
  - Useful washing height is reduced by 120 mm, Stainless steel basket is compulsoryigatorisk
- Tankedge gasket excluded
- Included in T-version
- Steam extration and panels under the basket



PERS



#### **Cleanline U80, U100, U120 B2** 2 steps automatic washer og small and medium parts

Cleanline U80,U100, U120 is a system ideal for the automatic washing of medium and large size mechanical parts.

The washing is carried out by the action of upper, lower and side jets.

The slow rotation of the platform is ensured by a gear motor with a torque limiter. A PLC management enables numberless customisations thanks to a wide range of accessories.

The 2-bath machines (2B) have two separate tanks and carry out both washing and rinsing.



Technical Data	U80 2 B	U100 2B	U120 2B
Basket capacity	100 kg	200 kg	300 kg
Dimension opened(LxBxH)	158 x 178 x 206 cm	178 x 195 x 216cm	198 x 210 x 237 cm
Vaske kapacitet (ØxH)	78 x 54 cm	97 x 54 cm	117 x 70 cm
Tank 1 capacity	240 L.	270 L.	350 L
Tank 2 capacity	180 L.	270 L.	350 L.
Pump 1	0,55 kW 2,5 bar 200 l./min.	1,5 kW 2,5 bar 200 L./min.	1,5 kW 2,5 bar 250 L/min
Pump 2	0,55 kW 2,5 bar 200 l./min.	1,5 kW 2,5 bar 200 L./min.	1,5 kW 2,5 bar 250 L/min
Heating tank 1	8,0 kW	8,0 kW	10,0 kW
Heating tank 2	6,0 kW	8,0 kW	10,0 kW
Motor for parts rotations	0,09 kW	0,09 kW	0,09 kW
Disc Oli separator	0,09 kW	0,09 kW	0,09 kW
Compressed air blowing	105 Nmc/h @ 4 bar	130 Nmc/h @ 4 bar	150 Nmc/h @ 4 bar
Drying	4,5 kW	4,5 kW	4,5 kW
Power supply	Three-phase	Three-phase	Three-phase

#### EQUIPMENT

#### included in Cleanline 2 step washing machines

- Timed electric exhaustion of steam
- Hatch closure assisted with gas springs and fastening hook
- Siemens® electric power parts
- 4" color touchscreen display for settings and programs
- Box filter made up of 6 Aisi 304 SS vertical filters for pre-filtration of the liquid flowing back into the tank
- Aisi 304 stainless steel filter in pump intake
- Tank border gasket
- Structure and sheet metal in contact with liquid in Aisi 304 stainless steel
- Minimum level switch
- Safety limit switch on cover opening
- Aisi 304 stainless steel electric pump with special seals
- Weekly programming to start heating and deoiler (if installed)
- IP65 electrical system, management via PLC touchscreen (DGT V4)
- Heating of the liquid with stainless steel electric heating element
- Mechanical rotation of basket via gearmotor
- Internal welding bleaching
- Tanks accessible from the outside
- Stainless steel bottom section load-bearing structure
- Aisi 304 stainless steel washing pipelines with professional stainless steel flat nozzles
- Drain valves for emptying tanks
- Manual water filling valve

#### **HT-VERSION**

- Heat insulation with Aisi 430 stainless steel panels
- Safety limit switch with cover opening lock during cycles
- Panels under basket with grease and solids collection sump filters



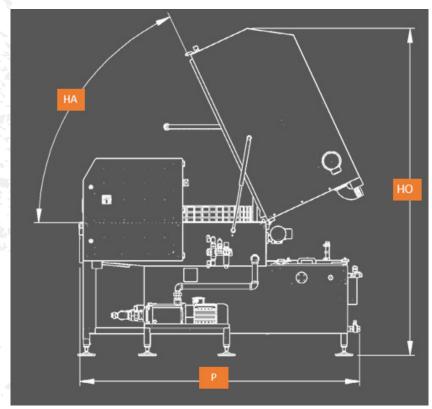


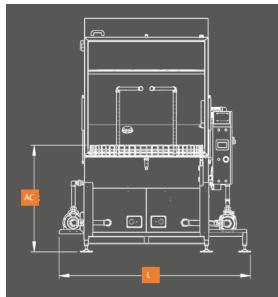
#### **Additional accessories**

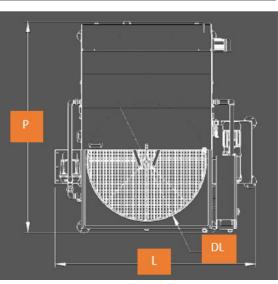
- Maximum liquid level control
- Compressed air blowing
- Hot air drying with resistor and air blade side channel blower
- Demineralizer with mixed resins and conductivity meter
- Pneumatic cover opening and closing with two-hand safety control unit
- Centrifugal steam condenser S mobile version
- Two-hands control for basket rotation with opened lid
- Stainless steel Aisi 304 external trolley with drops-catcher, wheels and safety brakes [C]
- Additional basket/platform in stainless steel
- Stainless steel Aisi 304 additional external trolley
- Automatic liquid detergent dispenser
- Disc oil separator with dedicated motorization
- External pneumatic oil separator
- Bag filter in stainless steel
- Magnetic spark plug for bag filter for ferrite powder
- Idle lower rotating group in stainless steel
- Idle upper rotating group in stainless steel [C]
- Device for remote connection and remote support for HMI Weintek
- Kit for Industry 4.0 for HMI Weintek
- Manual washing and blowing with hoses and washing nozzle
- 80 bar manual washing and blowing with hoses and washing nozzle (both for LT or for HT available)
- Kit for use with abrasive contaminants in the washing liquid
- Stainless steel fittings and valves kit (for parts that are in contact with liquids)
- PLC Siemens® S7 1200 HMI touchscreen Weintek
- High pressure washing pump
- High pressure rinsing pump
- Circulating pump from tank 2 (most clean) to tank 1 (most contaminated)
- Stainless steel Aisi 304 retention tank with drip-catcher
- Upper ramp fastened to the cover
- Rinsing by water supply and direct drain outlet
- Nebulized rinse from water mains, draining into the washing tank
- Tanks emptying pump (2)
- Signal tower for indicating system status
- Pipes with blade-nozzle in stainless steel 1/8"
- Workpieces positioning /clamping pallet



## Dimensions







				-	
		U 80 2B	U 100 2 B	U 120 2B	
L	Width	158 cmm	178 cm	198 cm	
Р	Depht	178 cm	195 cm	210 cm	
НО	Height	206 cm	216 cm	237 cm	
DL	Working diameter	78 cm	97 cm	117 cm	
HL	Washing height	54 cm	54 cm	70 cm	
AC	Loading height	93 cm	93 cm	93 cm	
HA	Opening angle	60 °	60 °	60 °	No.
W	Weight	300 kg	400 kg	500 kg	
RU	dBa	75	75		







### PARTS WASHING MACHINE MODEL TL 700-900-1150





## TL-700 - 900 - 1150

Rotating basket shock absorber parts washing mashines

#### **USAGE AREAS**

- Automorive Industy
- Aircraft Industry
- Shipbuilding Industry
- Military Industry
- Metal Industry

#### **OPTIONAL SPECIFICATION**

- Steam Discharge
- Body Structure
- Basket Structure
- Nozzle Piece
- Liguid Level Control System





	<b>TL-700</b>	TL-900	TL-1150
Basket Diameter (mm)	700	900	1150
Loading Height (mm)	380	450	600
Tank Capacity (L)	120	150	200
Pump Pressure (Bar)	8,0	10,0	12,0
Total Water Usage (L)	60	80	180
Number of Pumps and Power	1 x 2	1 x 2	1 x 2
Heater (kW)	7,5	7,5	15
Loading Weight (kg)	120	300	440
Electricity (V / Phase)	220-380 / 3	220-380 / 3	220-380 / 3
Timer	0-30	0-30	0-30
Thermostat (°C)	0-90 °C	0-90 °C	0-90 °C
Loading Trolley	-	-	Including
Motor Driven Basket	Including	Including	Including
Oil Scraper(Seperator)	-	Optional	Optional
Stainless Steel Body	AISI 304	AISI 304	AISI 304
Liquid Level Control	Optional	Optional	Optional
Automatic Feeding System	Optional	Optional	Optional
Pump Stainless Chrome	Ceramic Seal Felt	Ceramic Seal Felt	Ceramic Seal Felt
Machine Dimensions	850x850x1000	1000x1000x1200	1250x1250x1600



## PARTS WASHING MACHINE MODEL FL-1100 P - 1350 - 1600



#### **USAGE AREAS**

.

.

•

•

•

•

.

.

•

.

.

- Automorive Industy
- Aircraft Industry
- Shipbuilding Industry
- Military Industry
- Metal Industry
- Coating Industry
- Food Industry

#### **OPTIONAL SPECIFICATION**

- Oil Seperator
- Docunmatic Screen
- Insulation System
- Precision Filtration
- Drying
- Rinsing
- Water Treatment System
- Steam Discharge
- Body Structure
- Pump Piece
- Basket Structure
- Nozzle Piece
- Automatic Loading System
- Automatic Feeding System
- Liguid Level Control System







FL-1100P	FL-1350	FL-1600
1100	1350	1600
600	700	800
200	240	275
11,0	12,0	13,0
180	220	255
1 x 2,5	2 x 2,5	2 x 2
2 x 7,5	2 x 7,5	2 x 7,5
440	650	750
220-380 / 3	220-380 / 3	220-380 / 3
0-30	0-30	0-30
0-90 °C	0-90 °C	0-90 °C
Including	Including	Including
Including	Including	Including
Optional	Optional	Optional
AISI 304	AISI 304	AISI 304
Optional	Optional	Optional
Optional	Optional	Optional
Ceramic Seal Felt	Ceramic Seal Felt	Ceramic Seal Felt
1250x1250x1700	1500x1500x1800	1750x1750x1900
	1100   600   200   11,0   180   1×2,5   2×7,5   440   220-380 / 3   0-30   0-90 °C   Including   Optional   AISI 304   Optional   Optional   Ceramic Seal Felt	1100 1350   600 700   200 240   11,0 12,0   180 220   1x 2,5 2 x 2,5   2x 7,5 2 x 7,5   440 650   220-380 / 3 220-380 / 3   0-30 0-30   0-90 °C 0-90 °C   Including Including   Including Optional   AISI 304 AISI 304   Optional Optional   Optional Optional   Optional Optional   Ceramic Seal Felt Ceramic Seal Felt



FL-1600

## You have the items We have the solutions

Our location and test center

If you have any questions, please contact our customer support departement

Area sales manager Jens Brietzke +45 2819 2874 jens@pers-group.com

PERS

**Jylland** Head office +45 7582 6633 info@pers-group.com

Testcenter Torben Pers +45 2819 2875

Pers Group | Industrivej 12-16 | 7120 Vejle Ø | Tlf. 7582 6633 | Mail: info@pers-group.com Se mere på www.pers-group.com Janι

Januar 2022